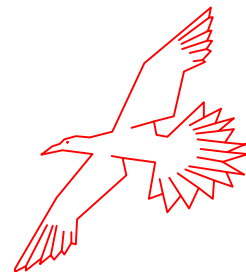

PORT JERSEY
BAYONNE , NEW JERSEY (NEAT)
CONTRACT No. 410-10-037
SURVEY No. 2012-364

HYDROGRAPHIC SURVEY
January 15, 2013

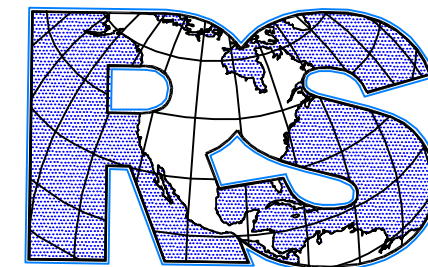
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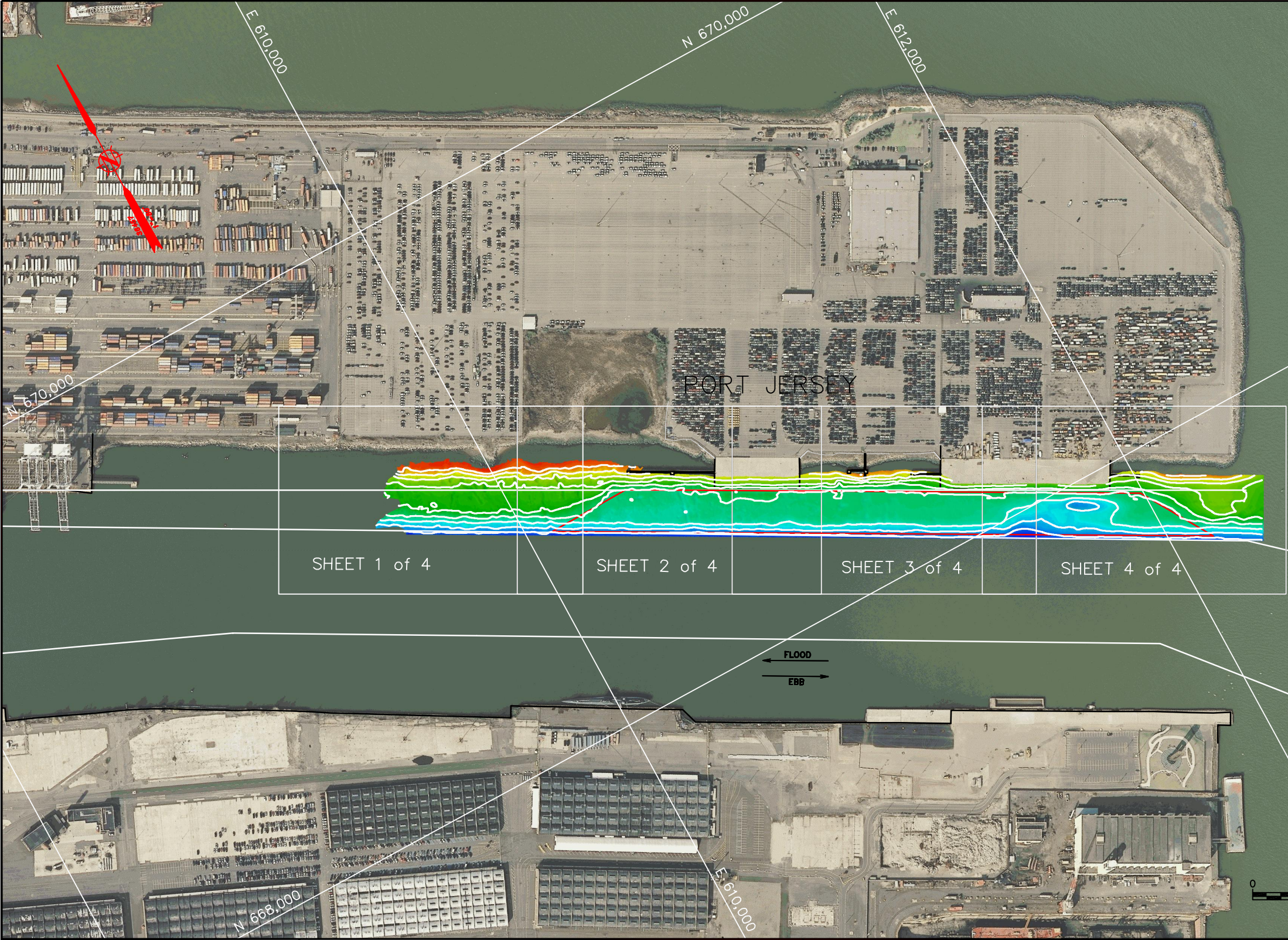
- 1. INDEX
- 2. SHEETS 1 – 4



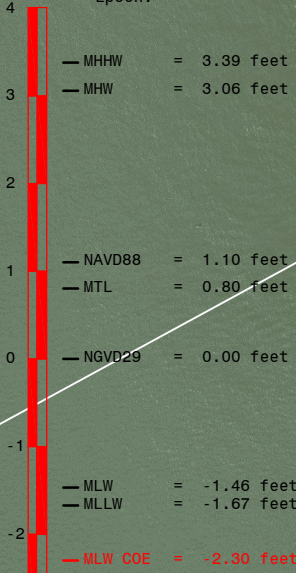
Vicinity Map



ROGERS SURVEYING, PLLC
1632 Richmond Terrace
Staten Island, N.Y. 10310
(718) 447-7311
www.rogerssurveying.net



The NAVD 88 and the NGVD 29 elevations related to MLLW were computed from Bench Mark, R 340, at the station. Displayed tidal datums are referenced on 1983-2001 Epoch.



Soundings refer to MLW as determined by COE which is 0.63 feet below NOAA MLLW.

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1802 Industrial Terrace
Riverside, NJ, 08066
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www.rogerssurveying.net

Title

**PORT AUTHORITY
PORT JERSEY
BERTHS**

**HYDROGRAPHIC
SURVEY AND BERTH
VOLUME
CALCULATIONS**

No. Date Revision Approved

VERTICAL CONTROL
Mean Low Water = 2.33' Below 0.00 NGVD '29

HORIZONTAL CONTROL
ALL COORDINATES, BEARING AND DISTANCES ARE REFERENCED TO THE NEW JERSEY PLANE COORDINATE SYSTEM (N.A.D. 83) AS SET FORTH IN N.J.S.A. 51:3-7

This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without it's written consent.

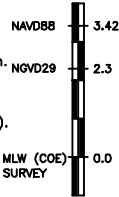
Rogers Surveying BW DWR
Surveyed by Drawn by Checked by

Date 01/15/2013 Scale 1"=400'
Contract Number 410-07-030 Drawing Number 36834

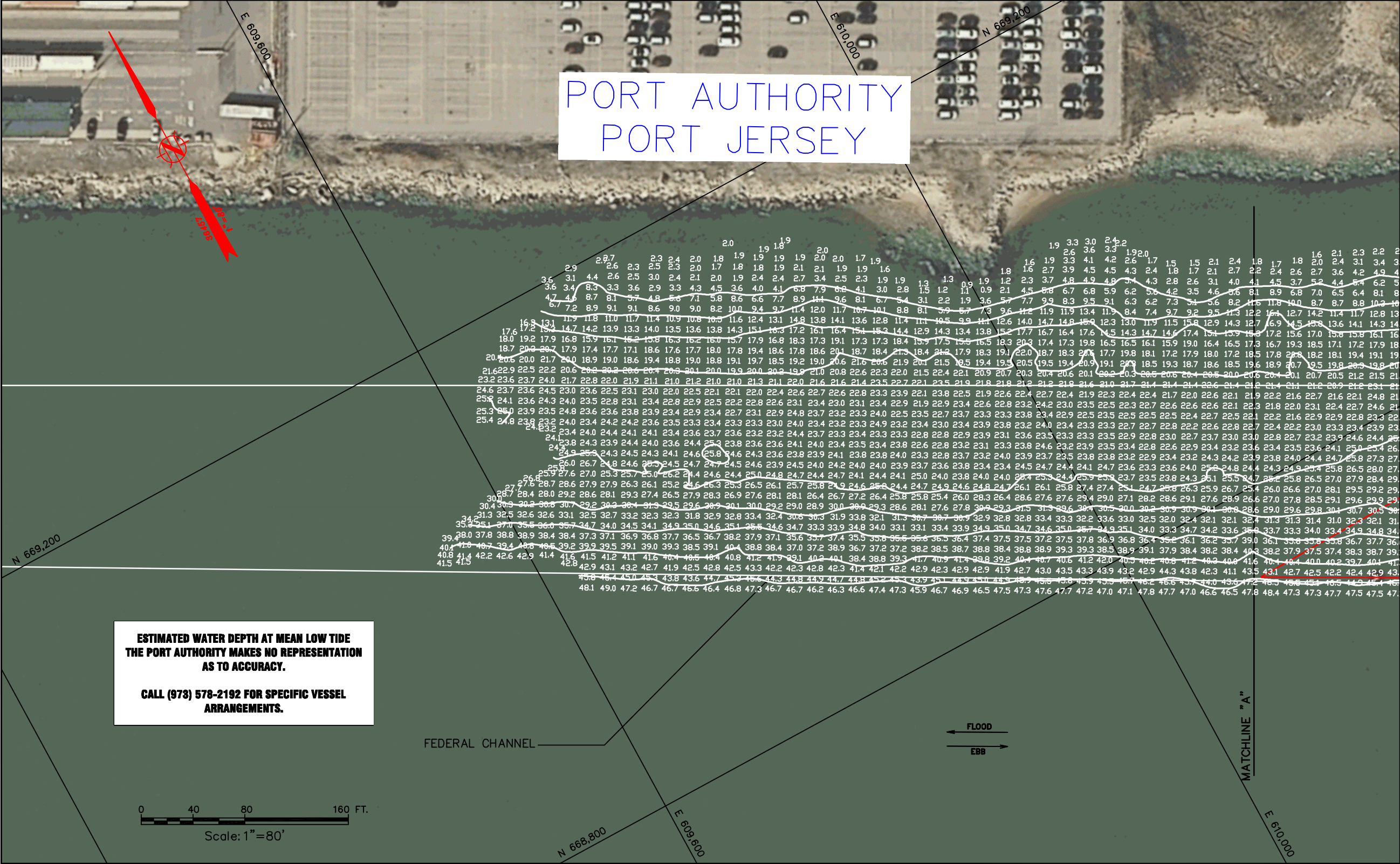
NOTE:
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THIS SURVEY WAS COMPLETED USING THE FOLLOWING EQUIPMENT:
* Survey Vessel "Red Rogers".
* Reson 7101 Multibeam.
* TSS 320 POS/MV.
* Coastal Oceanographics "HYPACK" software

Volume Report			
THE DATA USED FOR VOLUME CALCULATIONS IS REPRESENTATIVE OF A LARGER DATA SET. SOUNDINGS USED FOR VOLUME CALCULATIONS ARE ON A 3X 3' GRID WITH THE DEPTH NEAREST TO THE CENTER USED.			
Design Depth	Volume to Dredge Template	Volume of 2' Overdredge	Total Volume
32'	5,822 yd3	12,704 yd3	18,526 yd3

Coordinates are expressed in feet and refer to the NEW JERSEY STATE PLANE (NAD 83) System.
Soundings refer to Mean Low Water as determined by U.S.A.C.E.
The Plane of Mean Low Water is 2.3 feet below Mean Sea Level (NGVD 29).



I hereby certify to The Port Authority of New York and New Jersey that this map indicates the conditions existing as of the date indicated hereon to the best of my professional knowledge.
William A. Rogers, Jr., P.E., L.S.
William A. Rogers, Jr., P.E., L.S.
New Jersey State # 22254
A.C.S.M. Certified Hydrographer # 151



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1000 National Avenue
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(609) 462-0001
www.rogerssurveying.net

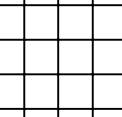
**PORT AUTHORITY
PORT JERSEY
BERTHS**

**HYDROGRAPHIC
SURVEY AND BERTH
VOLUME
CALCULATIONS**

No.	Date	Revision	Approved

VERTICAL CONTROL
Mean Low Water = 2.33' Below 0.00 NGVD '29

HORIZONTAL CONTROL
ALL COORDINATES, BEARING AND DISTANCES ARE REFERENCED TO THE NEW JERSEY PLANE COORDINATE SYSTEM (N.A.D. 83) AS SET FORTH IN N.J.S.A. 51:3-7

[illegible]

HYDROGRAPHIC SURVEY AND BERTH VOLUME CALCULATIONS

**CALL (973) 578-2192 FOR SPECIFIC VESSEL
ARRANGEMENTS.**

No.	Date	Revision	Approved

VERTICAL CONTROL
Mean Low Water = 2.33' Below 0.00 NGVD '29

HORIZONTAL CONTROL

ALL COORDINATES, BEARING AND
DISTANCES ARE REFERENCED TO THE
NEW JERSEY PLANE COORDINATE SYSTEM
(N.A.D. 83) AS SET FORTH IN
N.J.S.A. 51:3-7

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<u>Rogers Surveying</u>	<u>BW</u>	<u>DWR</u>
Surveyed by	Drawn by	Checked by

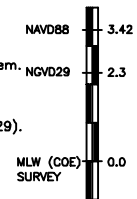
Date 01/15/2013
Contract Number 410-07-030
Scale 1"=80'
Drawing Number 36834

NOTE:
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THIS SURVEY WAS COMPLETED USING THE FOLLOWING EQUIPMENT:


- "Survey Vessel" Red Rodgers",
- Reson 7101 Multibeam,
- TSS 320 POS/MV,
- Coastal Oceanographics "HYPACK" software

Design Depth	Volume to Dredge Template	Volume of 2' Overdredge	Total Volume
32'	5,822 yd3	12,704 yd3	18,526 yd3

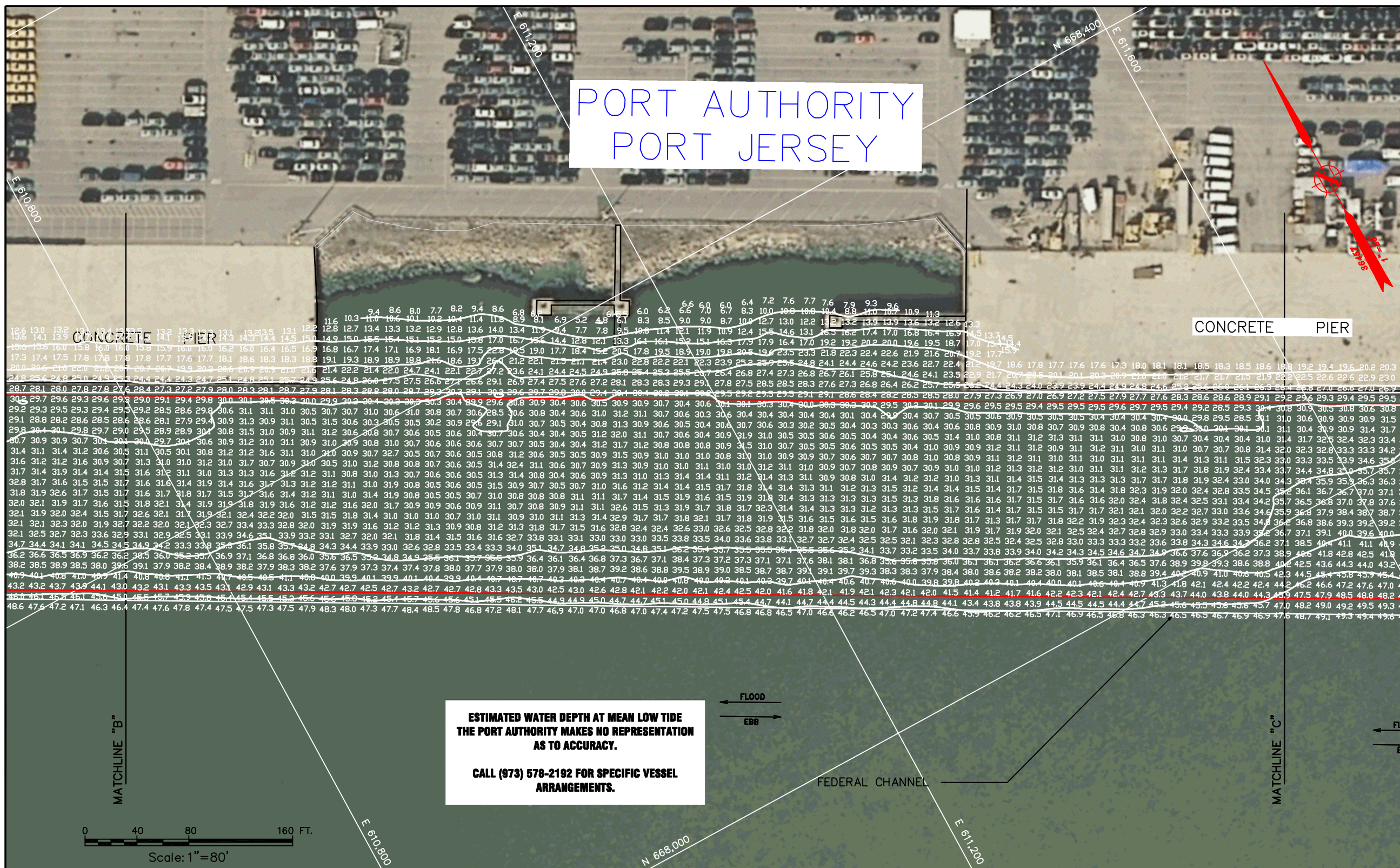
Coordinates are expressed in feet and refer to the NEW JERSEY STATE PLANE (NAD 83) System.
Soundings refer to Mean Low Water as determined by U.S.A.C.E.
The Plane of Mean Low Water is 2.3 feet below Mean Sea Level (NGVD 29).



I hereby certify to The Port Authority
of New York and New Jersey that this
map indicates the conditions existing
as of the date indicated hereon to the
best of my professional knowledge.



William A. Rogers, Jr., P.E., L.S.
New Jersey State # 22254
A.C.S.M. Certified Hydrographer # 151



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OF NY & NJ



ROGERS SURVEYING, PLLC
1022 Richmond Terrace
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(718) 467-7311
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A blank 10x10 grid for graphing, with a vertical axis on the left labeled with the letters A, B, C, D, E, F, G, H, I, J from bottom to top.

20	Title
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PORT AUTHORITY PORT JERSEY BERTHS

HYDROGRAPHIC SURVEY AND BERTH VOLUME CALCULATIONS

No.	Date	Revision	Approved

VERTICAL CONTROL
Mean Low Water = 2.33' Below 0.00 NGVD '

HORIZONTAL CONTROL

ALL COORDINATES, BEARING AND DISTANCES ARE REFERENCED TO THE NEW JERSEY PLANE COORDINATE SYSTEM (N.A.D. 83) AS SET FORTH IN N.J.S.A. 51:3-7

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<u>Rogers Surveying</u>	<u>BW</u>	<u>DWR</u>
Surveyed by	Drawn by	Checked by

Date _____ Scale 1"=80'

01/15/2013	
Contract Number	Drawing Number
410-07-030	36834

NOTE:
THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THE DATA IS REPRESENTATIVE OF A LARGER DATA SET. SOUNDINGS AND CONTOURS SHOWN ARE FROM 8'X16" GRID NEAREST TO CENTER. COORDINATES REFER TO THE NEW JERSEY MERCATOR SYSTEM (NAD 1983) SOUNDINGS REFER TO THE PLANE OF MEAN LOW WATER THE PLANE OF MEAN LOW WATER IS 2.3 FEET BELOW NOOD (1929) THE SOUNDING DATA DEPICTED ON THIS MAP WAS COLLECTED USING CLASS 2 SURVEY STANDARDS IN ACCORDANCE WITH EM 1110 2 1003.

THIS SURVEY WAS COMPLETED USING THE FOLLOWING EQUIPMENT:

- * Survey Vessel "Red Rogers".
- * Reason 7101 Multibeam.
- * TSS 320 POS/MV.
- * Coastal Oceanographic "HYPACK" software

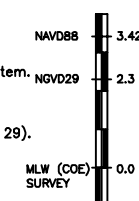
Volume Report

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<i>Design Depth</i>	<i>Volume to Dredge Template</i>	<i>Volume of 2' Overdredge</i>	<i>Total Volume</i>
32'	5,822 yd3	12,704 yd3	18,526 yd3

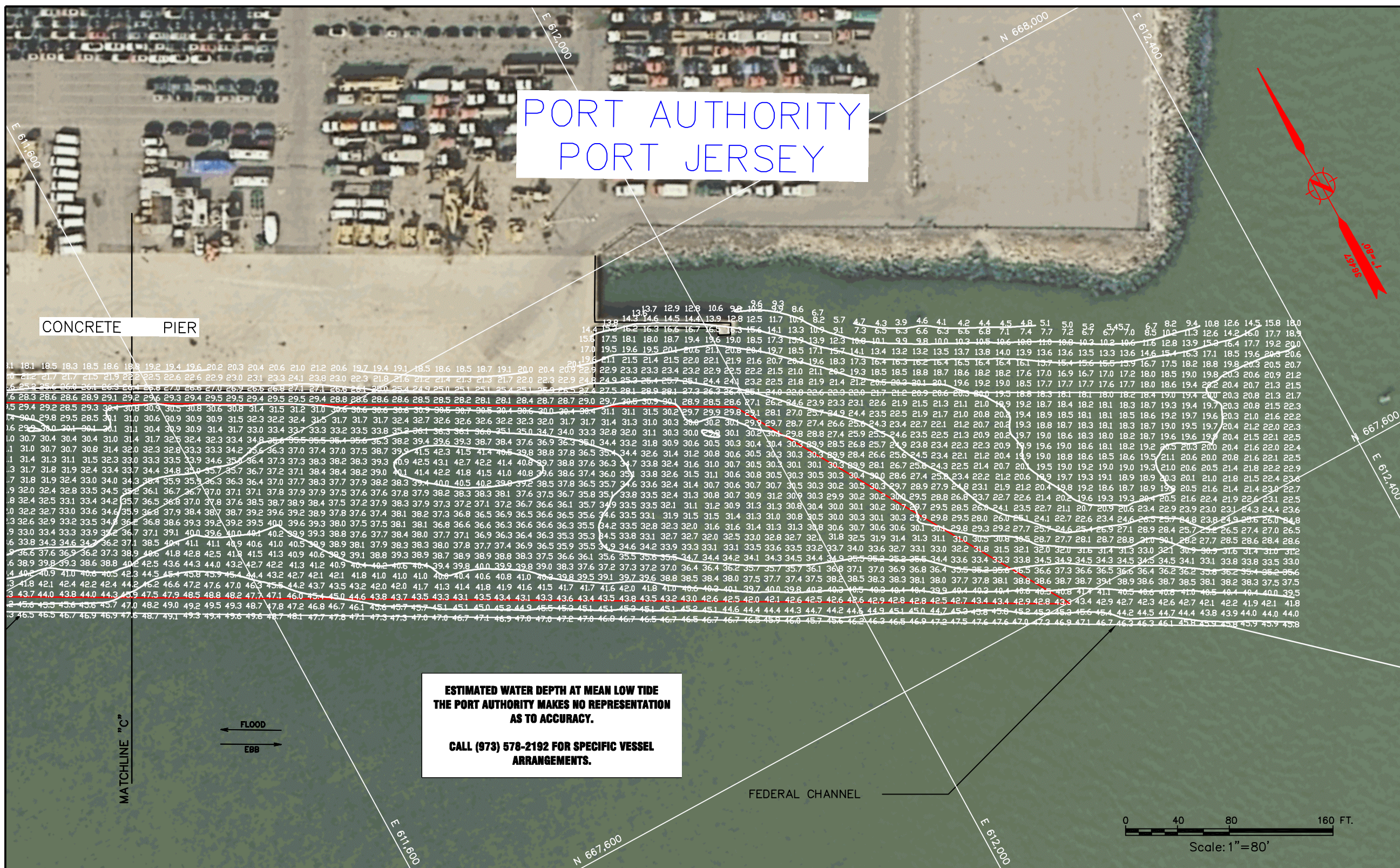
Coordinates are expressed in feet and refer to the NEW JERSEY STATE PLANE (NAD 83) System
SOUNDINGS refer to Mean Low Water as determined by U.S.A.C.E.

The Plane of Mean Low Water is 2.3 feet below Mean Sea Level (NGVD 29)



I hereby certify to The Port Authority of New York and New Jersey that this map indicates the conditions existing as of the date indicated hereon to the best of my professional knowledge.

William A. Rogers, Jr., P.E., L.S.
New Jersey State # 22254
A.C.S.M. Certified Hydrographer # 151



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ROGERS SURVEYING, PLLC
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Staten Island, N.Y. 10310
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Title

PORT AUTHORITY PORT JERSEY BERTHS

HYDROGRAPHIC SURVEY AND BERTH VOLUME CALCULATIONS

No.	Date	Revision	Approved
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VERTICAL CONTROL
Mean Low Water = 2.33' Below 0.00 NGVD '

HORIZONTAL CONTROL

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<u>Rogers Surveying</u>	<u>BW</u>	<u>DWR</u>
Surveyed by	Drawn by	Checked by

Date 01/15/2013
Contract Number 410-07-030
Scale 1"=80'
Drawing Number 36834

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THIS SURVEY WAS COMPLETED USING THE FOLLOWING EQUIPMENT:

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- * Reason 7101 Multibeam.
- * TSS 320 POS/VN.
- * CodaOctopus/Hypack "HYPACK" software

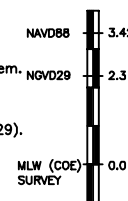
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Coordinates are expressed in feet and refer to the NEW JERSEY STATE PLANE (NAD 83) System
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William A. Rogers, Jr., P.E., L.S.
New Jersey State # 22254
A.C.S.M. Certified Hydrographer # 15